

Estimates of Effective Factors on Nursing Process from the Viewpoint of Nurses Working in Torbat Heydariyeh Hospitals in 2014

Arezo Mohamadkhani Ghasvand¹, Esmail Mohammadnejad², Leila Dehghankar³, Malihe Pashib⁴, Hassan Ramezani⁵, Ali Khalafi⁴

¹Students Research Committee, School of Nursing and Midwifery, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

²PHD Candidate in Nursing, Students Research Committee, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

³MSc in nursing education, Nursing and Midwifery Faculty, Qazvin University of Medical Sciences, Qazvin, Iran.

⁴Torbat Heydariyeh University of Medical Sciences, Torbat Heydariyeh, Iran.

⁵Student Research Committee, Torbat Heydariyeh University of Medical Sciences, Torbat Heydariyeh, Iran.

Received: May 2, 2015

Accepted: August 11, 2015

ABSTRACT

Introduction: Nursing is a scientific and comprehensive approach to care of patients which can justify the nursing profession in scientific basics. In fact, the nursing process is considered as a framework for planning and presenting nursing cares for patients and their families. The aim of present study is Estimation of effective key factors on nursing process from the viewpoint of nurses working in Torbat Heydariyeh hospitals in 2014.

Materials and Method: This research is a cross-sectional study. In order to conduct the research, viewpoints of 170 working nurses in regard with estimation of effective key factors on nursing process in Torbat city hospitals were evaluated. A researcher-made questionnaire that had acceptable reliability and validity was used as data collection instrument. The questionnaire consisted of two parts. The first part was consisted of demographic questions and second part questions were about management factors in nursing process in 6 item: collective participation, human resources, control and monitoring, encouragement and Punishment, Tools and conditions, Personal. The collected data were analyzed by SPSS and chi square test.

Findings: The average age of nurses was 30.53 ± 6.29 years. Youngest nurse was 22 and the oldest one was 50-year-old. 94 (64.4 %) of them were women. 118 (80.8 %) were married. 142 (97.3 %) had a bachelor's degree. Basically, 129 (88.4 %) of them in term of job position were nurse and the others were head nurse and supervisor. In all areas of questionnaire, average scores of morning shift nurses were higher than the rest of them. Men's score was higher than women in the aspects of human resources and collective participation. There were positive significant relationships between the all variables. The strongest correlation was between collective participation and human resources and the weakest one was related to the control and monitoring with encouragement and Punishment.

Conclusion: The results showed that there are unprincipled nursing training processes in universities during academic educations. Also there are insufficient practice and lack of practical application of nursing process in care of patients. Therefore relevant authorities should apply proper plans to implement the appropriate nursing process in order to positive result prevalence.

KEY WORDS: Key Factors, Nursing Process, Nurses

INTRODUCTION

The crucial goal of nursing services is providing standard cares to recover patients and return them to society. By increasing the quality of nursing cares, patients can be returned to society as soon possible. One of the most important ways to improve the quality of nursing care is the use of care standards. (1). Nursing process as a nursing standard in most of the health systems and advanced countries is running (2). The Nursing Process is an approach to investigate in nursing. It provides nursing in the form of regular pattern which is acted as guidelines for activities and compares them with nursing considerations. Lastly, procedures were provided as prepared materials to learn. Using the nursing process, nursing care plan and clinical methods are inseparable parts of patient care (3). Smeltzer et al described this practical standard as spirit of nursing and they believe, it is a thoughtful way to solve the problems, meet the patient needs and care of him. Nursing process is a combination of cognitive, interpersonal, ethical and legal skills causes the nursing care progress from traditional methods to the scientific and the patient-base methods (4). Nursing process is the core of the nursing, and is a way to reach critical thinking, analysis of patients' care problems, accurate and timely decision making. Proper implementation of process leads to access comprehensive care of patients according to scientific principles. Nurses who use nursing

process in logical and systematic method, achieve a clear and proper way to planning of nursing care by nursing team that led to get the results for patients (4). Nursing process is a framework for nursing care that is usable in all health care environments. The event that the nursing practice has been achieved in accordance with the nursing process, patients would receive appropriate care in the shortest time with the maximum adequacy (5). Different authors and experts divided the nursing process stages in various forms but the newest attitude in term of nursing process is the 6-stage approach which the American Nurses Association has introduced. The stages are as follows; 1.Assessment 2.Diagnosis 3.Targets 4.Planning 5.Implementation 6.Evaluation. (6) .In present study among the key factors of nursing process in individual level, awareness, beliefs and attitudes and skills can be mentioned. Regarding the management levels the results of this study were included; control Monitoring, adequate human resources, proper encouragement and punishment, appropriate situation and tools and collective participation (7 and 4). Researchers and authors have not an agreement on advantages and disadvantages of the nursing process, some of them consider that as a restrictive factor in nurses' critical thinking, and some others believe nursing process enhances the nurses' decision making ability in different clinical situations. (4). Lack of nursing process usage as a care standard leads to decrease of job satisfaction, lack of appropriate evaluation, degrade nursing scientific and practical aspects and reduction of care quality. (2). According to results of Vanaki's et al study in 2010, implementation of nursing process effects on the quantity and quality of nursing care improvement. As well as enhances the staffs' satisfaction and reduce the length of hospitalization. Nursing process provides a condition for nurses to use their knowledge and skills in order to take care of help-seekers (5). Therefore present study was conducted to evaluation of effecting factors on nursing process in Torbat Heidariye city hospitals for future planning and taking some actions.

MATERIALS AND METHODS

Present research is a cross-sectional study. Stratified sampling method was applied and by Morgan formula 170 Nurses were selected from all wards of Razi and Nohom Dey hospitals which affiliated with the Torbat University of Medical Sciences in 2014. Data collection was performed by a researcher-made questionnaire that was consisted of two parts. The first part was consisted of demographic questions and second part questions were about management factors in nursing process. Samples were selected among Nurses who had bachelor's degree and higher with at least one year work experience in one of the selected hospitals. In order to determine the content validity, five Professors and specialists evaluated the questionnaire and for reliability test-retest was performed. The collected data were analyzed by SPSS and Chi-square test. Inclusion criteria of research were bachelor's degree in nursing and working in hospital and exclusion criteria was unwillingness of nurses to participate in the project. Ethical considerations: the freedom of nurses to participate or withdraw from the study was considered and questionnaires were coded and confidential information was stored by researchers.

Findings

Among 170 participants in the study, 146 questionnaires were completed. 88 of them filled by Razi hospital nurses and 58 questionnaires were achieved by Nohom Dey hospital nurses. The average age of the participants were 30.53 ± 6.29 years. Youngest nurse was 22-year-old and oldest one was 50-year-old and the highest frequency was related to ages 30 to 40 years. Therefore the youth and middle aged nurses formed the majority of population in these hospitals. Table (1)

Table (1). Demographic variables			
The variable		Number	Percentage
Gender	Male	52	35.6
	Female	94	64.4
Marriage	Married	118	80.8
	Single	27	19.2
Education	BS degree	142	98.6
	MS degree	2	1.4
Post	Nurse	129	88.4
	Head nurse	7	4.1
	Supervisor	9	7.5
Work experience (years)	Less than 5	79	54.2
	5-10	32	22.2
	10-15	18	12.5
	15 and greater	15	10.4
work section	Emergency	26	18.1
	Internal	14	9.7
	CCU	17	11.8
	Orthopedics	2	1.4
	Surgery	13	9

ICU	11	7.6
NICU	18	12.5
Children	13	9
Women	13	9
Neurosurgery	5	3.5
Nursing Office	5	3.5
Infectious	4	2.8
Dialysis	3	2.1

52 of nurses (35.6%) were males and 94 (64.4%) were females. 118 (80.8%) individuals were married and 27 (19.5%) were single, 142 (98.6%) persons had a bachelor's degree and 2 (1.4%) had a master's degree. Regarding the job position were as follows; 129 (88.4%) were nurse, 9 (7.5%) supervisors and 7 (4.1%) head nurses. In state of work experience, nurses with less than 5 years' experience had the highest frequency and nurses with higher than 15 years of work experience had the lowest prevalence. In terms of work section, the largest number of nurses was from emergency ward and least of them were from the dialysis ward. Nursing process was archived by most of the nurses for hospitalized. Most of the nurses were participated in In-service courses. As well as, they were taught average scientific subjects in university. Table. (2)

Table (2) familiarity with the nursing process			
Variable	Yes / No	Number	Percent
Do you perform the nursing process for hospitalized patients?	Yes	94	64.4
	No	52	35.6
Have you participated in In-service course of nursing process retraining?	Yes	71	49
	No	74	51
Have you learned about nursing process Nursing during your educational courses?	Low	15	10.3
	Average	83	56.8
	High	48	32.9

Factors related to the nursing process in two areas of management and individual factors were evaluated. Questions from 1 to 9 were in the area of control and supervision, 10 to 13 human resources, 14 to 16 collective participation, 17 to 21 tools and situations, 22 to 26 encouragement and punishment and 27 to 37 questions were related to personal area. The questions score was 0 to 4, and 5 meant ideal and score of 1 meant the worst situation. In the area of management, affecting factors of nursing process in five areas were evaluated which were as follows; control and supervision, human resources, collective participation, appropriate tools and conditions and the encouragement and punishment. Table (3)

Table 3. Affecting factors of the nursing process in management area		
Standard Deviation	Mean	Variable
0.90	2.88	Control and supervision
0.81	2.29	Human sources
0.87	2.79	Collective participation
0.77	2.71	Tools and conditions
0.81	2.55	Encouragement and punishment
0.81	2.86	Personal

In the area of management, the control and supervision had the greatest impact and human resources had the least effects. Among the all factors still the control and supervision had the highest effectiveness and after that individual area had greatest importance to the implementation of the nursing process. As is showed, in following dimensions; control and supervision, appropriate tools and conditions, encouragement and punishment and the personal area Nohom Dey hospital scores were higher than Razi hospital, however, in two dimensions of human resources and collective participation the Razi hospital scores were higher. In order to comparing the average of scores between two hospitals, independent t-test was applied for each dimension. Results of the test showed that there is a significant difference between control and supervision with appropriate tools and conditions; however, in rest of dimensions the mean of scores between two hospitals did not show a significant difference. The table 4 shows the nurses' scores in regard to their gender separately. In all examined dimensions, women's scores were higher than men. Also the mean scores were recorded regarding participant's marital status. In human resources and collective participation men' scores were higher than women and in following ones women's scores were higher than men's scores; control and supervision, appropriate tools and conditions, encouragement and punishment and personal area. As well as, the mean of nurses' scores was recorded separately with regard to job position. In this case as is known in control and supervision, human resources appropriate tools and conditions supervisors' score was higher the others encouragement and punishment was related to head nurses and collective

participation and personal area the nurses' score was the highest. However, the results of ANOVA did not show a statistically significant difference among three groups' mean scores in any of the areas. Table (4)

Individual		Encouragement and punishment		Appropriate Tools & conditions		Collective participation		Human resources		Control and supervision		Variables	
SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean		
0.86	2.87	0.73	2.56	0.67	2.46	0.88	2.87	0.72	2.54	0.83	2.82	Razi	hospital
0.73	2.56	0.86	2.57	0.79	2.88	0.86	2.73	0.74	2.19	7.01	3.04	9 Dey	
0.77	2.84	0.74	2.42	0.70	2.62	0.90	2.66	0.75	2.23	0.71	2.65	Male	Gender
0.84	2.62	0.84	2.62	0.81	2.76	0.85	2.86	0.85	2.33	0.96	2.93	Female	
0.78	2.82	0.79	2.53	0.74	2.69	0.88	2.80	0.82	2.31	0.94	2.83	Married	Marriage
0.97	2.99	0.88	2.61	0.91	2.80	0.81	2.74	0.79	2.23	0.72	2.86	Single	
0.96	2.73	0.82	2.64	0.91	2.82	0.62	2.73	0.63	2.40	0.71	2.92	Supervisor	Post
0.54	2.51	0.65	2.67	0.42	2.68	0.79	2.33	0.55	1.89	0.67	2.47	Head nurse	
0.84	2.88	0.82	2.53	0.78	2.70	0.89	2.82	0.84	2.31	0.94	2.84	Nurse	
0.86	3	0.90	2.65	0.86	2.81	0.99	2.85	0.89	2.31	1.04	3.01	5-0	Work Experience
0.80	2.78	0.70	2.44	0.73	2.63	0.77	2.69	0.72	2.47	0.70	2.61	10-5	
0.69	2.47	0.73	2.36	0.55	2.36	0.56	2.74	0.66	2.12	0.52	2.31	15-10	
0.59	2.72	0.61	2.52	0.48	2.78	0.805	2.84	0.75	2.18	0.47	2.89	> 15	
0.96	3.22	0.94	3.06	1.16	3.29	1.28	3.13	1.25	2.55	1.17	3.08	Morning	Shift work
0.70	2.28	0.75	2.15	0.71	2.30	0.76	2.32	0.61	2.15	1.48	2.03	Evening	
0.55	2.91	0.93	2.58	0.80	2.81	0.88	2.74	0.81	2.52	2.78	2.73	Night	
0.78	2.78	0.71	2.52	0.62	2.64	0.79	2.85	0.76	2.24	0.66	2.77	Rotational	

As well as the mean of nurses' scores separated them according to work experience. The mean scores indicated that in the control and supervision, collective participation, tools and conditions, encouragement and punishment and personal area the highest score is related to nurses who had less than 5 years' experience and in human resources dimension nurses with 5 to 10 years' experience achieved the highest mean score. ANOVA test results showed a statistically significant difference between 4 groups' mean scores in the area of supervision and control.

As well as, the mean scores separated nurses regarding work shifts. As was shown, in all dimensions mean scores of morning shift was higher than the rest of the other shifts. ANOVA results showed a statistically significant difference between 4 groups' mean scores in the area of collective participation, tools and conditions, encouragement and punishment and individual work in different work shifts. Pearson correlation test results between 6 management and individual areas showed a positive significant relationship among the all areas. The strongest correlation was observed between human resources and collective participation. The weakest correlation was related to the control and supervision with encouragement and punishment.

DISCUSSION

The findings of the present study can provide a comprehension of affecting factors in implementation of nursing process by nurses. Also results help to explain the available realities in their experiences. This study showed that the average age of the subjects were 30.53 ± 6.29 years. Youngest nurse was 22-year-old and oldest one was 50-year-old. This should be noted the highest frequency of participants was related to ages 30 to 40 years. In Akbari et al.'s (2009) study in Tehran, the average age of nurses was 34 ± 7 . (8). In study which was conducted by Goudarzi et al (2004) in Tehran hospitals, the highest frequency of participants (50.8%) was related to average age of 30 to 40.(9). Therefore the youth and middle aged nurses formed the majority of population in these hospitals. In present study the number of female nurses was 94 (64.4%). In Goudarzi's study (89.9%) of nurses were female. (9). In Zamani Babgahari's (2012-13) study that was conducted in Hazrat Fatima hospital in Kerman 77.8% of nurses were female (10). That showed the trend of increasing females' employment in the hospital. In the present study 142 (98.6%) persons had a bachelor's degree and 2 (1.4%) had master's degree. In Akbari et al.'s (2009) study in Tehran, 56(88.9%) participants had BA degree and 7 (11.1%) had master's degree (8). In Zamani Babgahari's (2012-13) study that was conducted in Hazrat Fatima hospital in Kerman 100% of nurses had master's degree (10) which indicated that the education level of nurses has increased. In state of work experience, nurses with less than 5 years' experience had the highest frequency and nurses with higher than 15 years of work experience had the lowest prevalence. In Goudarzi et al.'s (2004) study in Tehran hospitals, 34.1% of participants had 5 to 10 years' experience and lowest percentage was related to group who had 15 to 20 years' experience with 12.6%. (9). In Akbari et al.'s (2009) study in Tehran, the most of nurses (41.3%) had 8 to 15 years' experience (8). Nursing process was archived by most of the nurses for hospitalized patients. Approximately half of them were participated in retraining nursing process In-service courses. As well as, they were taught medium scientific material in university. In Akbari et al.'s (2009) study in Tehran, (96.8%) of nurses have been passed the nursing

process (8). Hona Hasson et al conducted an empirical research in this area which was titled of "Effects of education on nursing diagnosis and evaluation of the clinical consequence". This research was conducted on 72 nurses in two stages, before education and after education of the nursing process. By using descriptive statistics and data analysis, the results showed that the most important factor in nursing diagnosis ability was planning and evaluation. As well as a significant difference was observed in increasing nurses' ability to deploying nursing process and nursing diagnosis between two stages of study. This research was showed that appropriate training in order to deploy the nursing process, provides development of nursing knowledge and Increasing the participation of nurses to improve quality of patient care (11). Nowadays promotion of educational programs for help-seekers is a part of health care services in community. The purpose of help-seekers education is, giving sense of certainty and adequacy for inducing them to self-care (12). Golchin and Falahat Pishe in Qazvin University of Medical Sciences investigated on a research which was entitled as the place of patient education from the viewpoint of nurses and its' necessitate revising. The research showed that the nurses had accepted their role as a teacher however they expressed the difficulties of patient education as follows: lack of patients' motivation, lack of equipment, lack of human resources and time, as well as doctors' negative reactions and lack of authorities' plans (13). In Markium et al.'s (2002) studies with title of understanding the Nurses' words from patient education with aim of evaluation of nurses' role as a teacher and determination of patient education barriers and facilitator was conducted in US. The research was investigated on 124 nurses who were selected randomly. The results showed that 92% of the nurses had declared that patient education is one of the nursing care priorities. The main patient education barriers in Markium study were reported as following factors; lack of patients' motivation, lack of human resources and time, as well as provide of educational forms and adequate and available recourses. (14). It seems by appropriate plans and performing the management approaches could advance the most important therapeutic step; the patient education, with aim of self-care for reduction of mortality, Reduction of frequent hospitalization fees, preserving individual autonomy.

Suggestions:

The researchers suggest for more precise study of the nursing processes, the interested researchers should divide processes into detailed parts and study them separately and generally. The present study researchers proposed following titles for future investigations and studies:

- Evaluation of hospital information system effects on the nurses' nursing process
- The investigation of the managers' Management style and its relationship with the nursing process
- The study of barriers to the use of evidence-based nursing in hospitals
- Study of nurses' report writing style
- Study of patient examination approach by nurses

Acknowledgements

This project was performed by support of research deputy of Torbat Heidariyeh university of Medical Sciences. At last researchers gratitude and thanked all nurses who answer the questions with the utmost seriousness and provide assistance to perform this research.

REFERENCES

- 1-Hansen BS, Severinsson E. Dissemination of research-based knowledge in an intensive care unit: a qualitative study. *Intensive Crit Care Nurs*. 2009; 25 (3): 147-54.
- 2-Huckabay LM. Clinical reasoned judgment and the nursing process. *Nursing Forum*. 2009; 44 (2): 72-8.
- 3-Windle PE. Moving beyond the barriers for evidence-based practice implementation. *J Peri anesth Nurs* 2006; 21 (3): 208-11.
- 4-Carol Taylor C, Lillis C, LeMone P, Lynn P. *Fundamentals of nursing: The art and science of nursing care*. 6th ed. Philadelphia: Lippincott Williams & Wilkins; 2008. P.51-9.
- 5-Timby BK. *Fundamental nursing skills and concepts* PK G. Philadelphia: Lippincott Williams & Wilkins; 2009. P.25.
- 6- Alfaro R, Alfaro-Lefevre R. *Applying nursing diagnosis and nursing process: a step-by-step guide*. 2nd ed. Philadelphia: Lippincott; 1990. P.2-163.
- 7- Akbari M. *The effect of nursing process education to nurses on quality of nursing cares* (MSc Thesis) Tehran: Branch of Medicine, Islamic Azad University; 2009. P. 5.

- 8- Akbari M, Shamsi A. A Survey on Nursing Process Barriers from the nurses' Intensive Care Units .iranian Journal of Critical Care Nursing of view
Vol. 3, No. 4, Winter2011: Page: 181-186
9. Bohrani, N. K hosravi, K.H. Goudarzi, Z. Valipour, P. (2004). Effective Factors of the Patient Education Process From Viewpoint of Nurses; Journal of Life. The Tenth year. N23, P. 57 -65.
10. Zamani Babgohari K H, Mokhtari Nouri J, K adhem A - Hosseini SM, E badi A. The Effect of Implementation of Evidence-Based Nursing Guidelines on the Quality of Standards of Nursing Care in Patients Admitted to the Coronary Care Unit: Journal of Education and Ethics in Nursing. 2014; 3 (1): 35-42.
- 11-Hasson H., Arnetz JE. The impact of an educational intervention on nursing staff ratings of quality of older people care: A prospective, controlled intervention study. Int J Nurs Stud. 2009; 46 (4): 470-8.
- 12- Bastable SB. Nurse as Educator: principles of teaching and learning for nursing practice. Sudbury, Mass: Jones and Bartlett; 2003.
- 13 - Golchin, M., Falahatpishe, F.(2002) the place of patient education from the viewpoint of nurses and its' necessitate revising. Journal of School of Nursing and Midwifery . Razi. The second period, N 1. spring and summer 2002.
- 14- Marcum J, Ridenour M, Shaff G, Hammons M, Taylor M. A study of professional nurses' perceptions of patient education. J Contin Educ Nurs. 2002 May- Jun; 33 (3): 112-8.